What is claimed is:

1. An imager, comprising:

a two-dimensional array of photosensors, each photosensor having a center point; and

a two-dimensional array of microlenses positioned over said two-dimensional array of photosensors, each microlens being associated with a corresponding photosensor, each microlens having a center point;

said microlens being positioned over said corresponding photosensor such that a center point of a microlens is offset, in a first direction, from a center point of a corresponding photosensor.

2. The imager as claimed in claim 1, wherein said microlens is positioned over said corresponding photosensor such that said center point of said microlens is offset, in a second direction, from said center point of said corresponding photosensor, said first direction being orthogonal to said second direction.

3. The imager as claimed in claim 1, wherein said first direction is radial with respect to a central point on a plane of said two-dimensional array of photosensors.

4. The imager as claimed in claim 1, wherein said microlenses are positioned over said corresponding photosensors such that a center point of each microlenses is offset from a center point of a corresponding photosensor, each offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors.

5. The imager as claimed in claim 1, wherein said offset is spatially varying.

6. The imager as claimed in claim 1, further comprising:

a color filter array positioned over said two-dimensional array of photosensors.

7. The imager as claimed in claim 6, wherein said color filter array comprises a plurality of color filter areas, each color filter area being associated with a corresponding photosensor and having a center point;

said color filter area being positioned over said corresponding photosensor such that a center point of a color filter area is offset, in a first direction, from a center point of a corresponding photosensor.

8. The imager as claimed in claim 7, wherein said color filter area is positioned over said corresponding photosensor such that said center point of said color filter area is offset, in a second direction, from said center point of said corresponding photosensor, said first direction being orthogonal to said second direction.

9. The imager as claimed in claim 7, wherein said color filter areas are positioned over said corresponding photosensors such that a center point of each color filter area is offset from a center point of a corresponding photosensor, each offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors.

10. The imager as claimed in claim 7, wherein said first direction corresponding to said color filter area offset is radial with respect to a central point on a plane of said two-dimensional array of photosensors.

11. The imager as claimed in claim 7, wherein said color filter area offset is spatially varying.

12. The imager as claimed in claim 1, further comprising:

a layer of transmissive apertures positioned over said two-dimensional array of photosensors, each aperture being associated with a corresponding photosensor and having a center point.

13. The imager as claimed in claim 12, wherein said aperture is positioned over said corresponding photosensor such that a center point of an aperture is offset, in a first direction, from a center point of a corresponding photosensor.

14. The imager as claimed in claim 13, wherein said aperture is positioned over said corresponding photosensor such that said center point of said aperture is offset, in a second direction, from said center point of said corresponding photosensor, said first direction being orthogonal to said second direction.

15. The imager as claimed in claim 12, wherein said apertures are positioned over said corresponding photosensors such that a center point of each aperture is offset from a center point of a corresponding photosensor, each offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors.

16. The imager as claimed in claim 12, wherein said first direction corresponding to said aperture offset is radial with respect to a central point on a plane of said two-dimensional array of photosensors.

17. The imager as claimed in claim 12, wherein said aperture offset is spatially varying.

18. The imager as claimed in claim 12, wherein said layer of transmissive apertures is a metal layer of apertures such that the metal layer blocks stray radiation and the apertures allow radiation to pass therethrough.

19. An imager, comprising:

a two-dimensional array of photosensors, each photosensor having a center point; and

a color filter array positioned over said two-dimensional array of photosensors, said color filter array including a plurality of color filter areas, each color filter area being associated with a corresponding photosensor and having a center point;

said color filter area being positioned over a corresponding photosensor such that a center point of a color filter area is offset, in a first direction, from a center point of a corresponding photosensor.

20. The imager as claimed in claim 19, wherein said color filter area is positioned over said corresponding photosensor such that said center point of said color filter area is offset, in a second direction, from said center point of said corresponding photosensor, said first direction being orthogonal to said second direction.

21. The imager as claimed in claim 19, wherein said color filter areas are positioned over said corresponding photosensors such that a center point of each color filter area is offset from a center point of a corresponding photosensor, each offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors.

22. The imager as claimed in claim 19, wherein said first direction corresponding to said color filter area offset is radial with respect to a central point on a plane of said two-dimensional array of photosensors.

23. The imager as claimed in claim 19, wherein said color filter area offset is spatially varying.

24. The imager as claimed in claim 19, further comprising:

a layer of transmissive apertures positioned over said two-dimensional array of photosensors, each aperture being associated with a corresponding photosensor and having a center point.

25. The imager as claimed in claim 24, wherein said aperture is positioned over said corresponding photosensor such that a center point of a aperture is offset, in a first direction, from a center point of a corresponding photosensor.

26. The imager as claimed in claim 24, wherein said apertures are positioned over said corresponding photosensors such that a center point of each aperture is offset from a center point of a corresponding photosensor, each offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors.

27. The imager as claimed in claim 24, wherein said first direction corresponding to said aperture offset is radial with respect to a central point on a plane of said two-dimensional array of photosensors.

28. The imager as claimed in claim 24, wherein said aperture offset is spatially varying.

29. The imager as claimed in claim 25, wherein said aperture is positioned over said corresponding photosensor such that said center point of said aperture is offset, in a second direction, from said center point of said corresponding photosensor, said first direction being orthogonal to said second direction.

30. The imager as claimed in claim 24, wherein said layer of transmissive apertures is a metal layer of apertures such that the metal layer blocks stray radiation and the apertures allow radiation to pass therethrough.

31. An imager, comprising:

a two-dimensional array of photosensors, each photosensor having a center point; and

a layer of transmissive apertures positioned over said two-dimensional array of photosensors, each aperture being associated with a corresponding photosensor and having a center point;

said aperture being positioned over said corresponding photosensor such that a center point of a aperture is offset, in a first direction, from a center point of a corresponding photosensor.

32. The imager as claimed in claim 31, wherein said aperture is positioned over said corresponding photosensor such that said center point of said aperture is offset, in a second direction, from said center point of said corresponding photosensor, said first direction being orthogonal to said second direction.

33. The imager as claimed in claim 31, wherein said apertures are positioned over said corresponding photosensors such that a center point of each aperture is offset from a

center point of a corresponding photosensor, each offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors.

34. The imager as claimed in claim 31, wherein said layer of transmissive apertures is a metal layer of apertures such that the metal layer blocks stray radiation and the apertures allow radiation to pass therethrough.

35. The imager as claimed in claim 31, wherein said first direction corresponding to said aperture offset is radial with respect to a central point on a plane of said two-dimensional array of photosensors.

36. The imager as claimed in claim 31, wherein said aperture offset is spatially varying.

37. An imager, comprising:

a two-dimensional array of photosensors, each photosensor having a center point;

a two-dimensional array of microlenses positioned over said two-dimensional array of photosensors, each microlens being associated with a corresponding photosensor, each microlens having a center point;

a color filter array positioned over said two-dimensional array of photosensors, said color filter array including a plurality of color filter areas, each color filter area being associated with a corresponding photosensor and having a center point; and

a layer of transmissive apertures positioned over said two-dimensional array of photosensors, each aperture being associated with a corresponding photosensor and having a center point;

said microlens being positioned over said corresponding photosensor such that a center point of a microlens is offset, in a first direction, from a center point of a corresponding photosensor;

said color filter area being positioned over said corresponding photosensor such that a center point of a color filter area is offset, in said first direction, from a center point of a corresponding photosensor;

said aperture being positioned over said corresponding photosensor such that a center point of a aperture is offset, in said first direction, from a center point of said corresponding photosensor.

38. The imager as claimed in claim 37, wherein said microlens is positioned over said corresponding photosensor such that said center point of said microlens is offset, in a second direction, from said center point of said corresponding photosensor, said first direction being orthogonal to said second direction;

said color filter area being positioned over said corresponding photosensor such that said center point of said color filter area is offset, in said second direction, from said center point of said corresponding photosensor;

said aperture being positioned over said corresponding photosensor such that said center point of said aperture is offset, in said second direction, from said center point of said corresponding photosensor.

39. The imager as claimed in claim 37, wherein said layer of transmissive apertures is a metal layer of apertures such that the metal layer blocks stray radiation and the apertures allow radiation to pass therethrough.

40. The imager as claimed in claim 37, wherein said microlenses are positioned over said corresponding photosensors such that a center point of each microlenses is offset from a center point of a corresponding photosensor, each offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors;

said color filter areas being positioned over said corresponding photosensors such that a center point of each color filter area is offset from a center point of a corresponding photosensor, each offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors;

said apertures being positioned over said corresponding photosensors such that a center point of each aperture is offset from a center point of a corresponding photosensor, each offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors.

41. The imager as claimed in claim 37, wherein said first direction corresponding to said microlens offset is radial with respect to a central point on a plane of said two-dimensional array of photosensors;

said first direction corresponding to said color filter area offset being radial with respect to a central point on a plane of said two-dimensional array of photosensors;

said first direction corresponding to said aperture offset being radial with respect to a central point on a plane of said two-dimensional array of photosensors.

42. The imager as claimed in claim 37, wherein said microlens offset is spatially varying;

said color filter area offset being spatially varying;

said aperture offset being spatially varying.

43. An imaging system, comprising:

a two-dimensional array of photosensors, each photosensor having a center point;

a non-telecentric lens positioned over said two-dimensional array of photosensors; and

a two-dimensional array of microlenses positioned over said two-dimensional array of photosensors, each microlens being associated with a corresponding photosensor, each microlens having a center point;

said microlens being positioned over said corresponding photosensor such that a center point of a microlens is offset from a center point of a corresponding photosensor, each offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors;

said spatial variation being determined based on optical characteristics of said non-telecentric lens and optical properties of said two-dimensional array of photosensors and said microlenses such that light sensitivity of each pixel is maximized.

44. The imaging system as claimed in claim 43, further comprising:

a color filter array positioned over said two-dimensional array of photosensors.

45. The imaging system as claimed in claim 44, wherein said color filter array comprises a plurality of color filter areas, each color filter area being associated with a corresponding photosensor and having a center point;

said color filter area being positioned over said corresponding photosensor such that said center point of said color filter area is offset from said center point of said corresponding photosensor, each offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors;

said spatial variation being determined based on optical characteristics of said non-telecentric lens and optical properties of said two-dimensional array of photosensors and said color filter areas such that crosstalk is minimized.

46. The imaging system as claimed in claim 43, further comprising:

a layer of transmissive apertures positioned over said two-dimensional array of photosensors, each aperture being associated with a corresponding photosensor and having a center point.

47. The imaging system as claimed in claim 46, wherein said aperture is positioned over said corresponding photosensor such that said center point of said aperture is offset from said center point of said corresponding photosensor, each offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors;

said spatial variation being determined based on optical characteristics of said non-telecentric lens and optical properties of said two-dimensional array of photosensors and said aperturess such that stray light signals are minimized.

48. The imaging system as claimed in claim 46, wherein said layer of transmissive apertures is a metal layer of apertures such that the metal layer blocks stray radiation and the apertures allow radiation to pass therethrough.

49. An imaging system, comprising:

a two-dimensional array of photosensors, each photosensor having a center point;

a non-telecentric lens positioned over said two-dimensional array of photosensors; and

a color filter array positioned over said two-dimensional array of photosensors, said color filter array including a plurality of color filter areas, each color filter area being associated with a corresponding photosensor and having a center point;

said color filter area being positioned over said corresponding photosensor such that said center point of said color filter area is offset from said center point of said corresponding photosensor, each offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors;

said spatial variation being determined based on optical characteristics of said non-telecentric lens and optical properties of said two-dimensional array of photosensors and said color filter areas such that crosstalk is minimized.

50. The imaging system as claimed in claim 49, further comprising:

a layer of transmissive apertures positioned over said two-dimensional array of photosensors, each aperture being associated with a corresponding photosensor and having a center point.

51. The imaging system as claimed in claim 50, wherein said aperture is positioned over said corresponding photosensor such that said center point of said aperture is offset from said center point of said corresponding photosensor, each offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors;

said spatial variation being determined based on optical characteristics of said non-telecentric lens and optical properties of said two-dimensional array of photosensors and said aperturess such that stray light signals are minimized.

52. The imaging system as claimed in claim 50, wherein said layer of transmissive apertures is a metal layer of apertures such that the metal layer blocks stray radiation and the apertures allow radiation to pass therethrough.

53. An imaging system, comprising:

a two-dimensional array of photosensors, each photosensor having a center point;

a non-telecentric lens positioned over said two-dimensional array of photosensors; and

a layer of transmissive apertures positioned over said two-dimensional array of photosensors, each aperture being associated with a corresponding photosensor and having a center point;

said aperture being positioned over said corresponding photosensor such that said center point of said aperture is offset from said center point of said corresponding photosensor, each offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors;

said spatial variation being determined based on optical characteristics of said non-telecentric lens and optical properties of said two-dimensional array of photosensors and said aperturess such that stray light signals are minimized.

54. An imaging system, comprising:

a two-dimensional array of photosensors, each photosensor having a center point;

a non-telecentric lens positioned over said two-dimensional array of photosensors;

a two-dimensional array of microlenses positioned over said two-dimensional array of photosensors, each microlens being associated with a corresponding photosensor, each microlens having a center point;

a color filter array positioned over said two-dimensional array of photosensors, said color filter array including a plurality of color filter areas, each color filter area being associated with a corresponding photosensor and having a center point; and

a layer of transmissive apertures positioned over said two-dimensional array of photosensors, each aperture being associated with a corresponding photosensor and having a center point;

said microlens being positioned over said corresponding photosensor such that said center point of said microlens is offset from said center point of said corresponding photosensor, each microlens offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors;

said color filter area being positioned over said corresponding photosensor such that said center point of said color filter area is offset from said center point of said

corresponding photosensor, each color filter area offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors;

said aperture being positioned over said corresponding photosensor such that said center point of said aperture is offset, in said first direction, from said center point of said corresponding photosensor, each aperture offset having an amount and a direction such that said amounts and directions spatially vary across said two-dimensional array of photosensors;

said spatial variation of said microlens offsets being determined based on optical characteristics of said non-telecentric lens and optical properties of said two-dimensional array of photosensors and said microlenses such that light sensitivity of each pixel is maximized;

said spatial variation of said color filter area offsets being determined based on optical characteristics of said non-telecentric lens and optical properties of said two-dimensional array of photosensors and said color filter areas such that crosstalk is minimized;

said spatial variation of said aperture offsets being determined based on optical characteristics of said non-telecentric lens and optical properties of said two-dimensional array of photosensors and said apertures such that stray light signals are minimized.